

85174
z/034/60/000/012/001/015
E073/E535

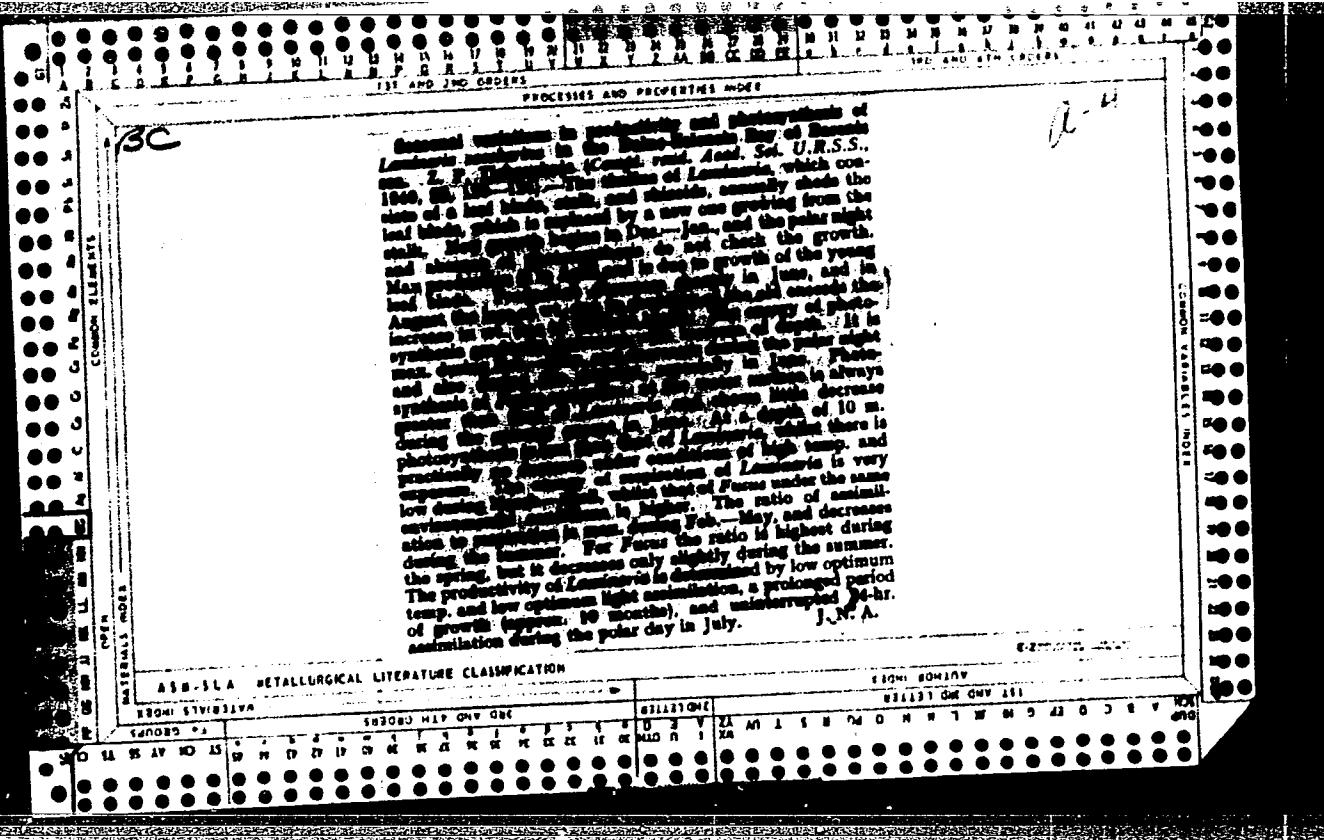
Influence of the Sulphur Content of the Flue Gases in Heating
Furnaces on the Steel being Heated

out by the authors of this paper, mazout M with 3% sulphur content
is suitable only for heating low carbon steels and silicon steels
as, for instance, transformer or dynamo steel. There are 7 figures,
5 tables and 17 references: 7 German and 10 English.

ASSOCIATION: Výzkumný ústav hutnictví železa, Praha
(Ferrous Metallurgy Research Institute, Prague)

SUBMITTED: August 4, 1960

Card 4/4



"APPROVED FOR RELEASE: 03/14/2001

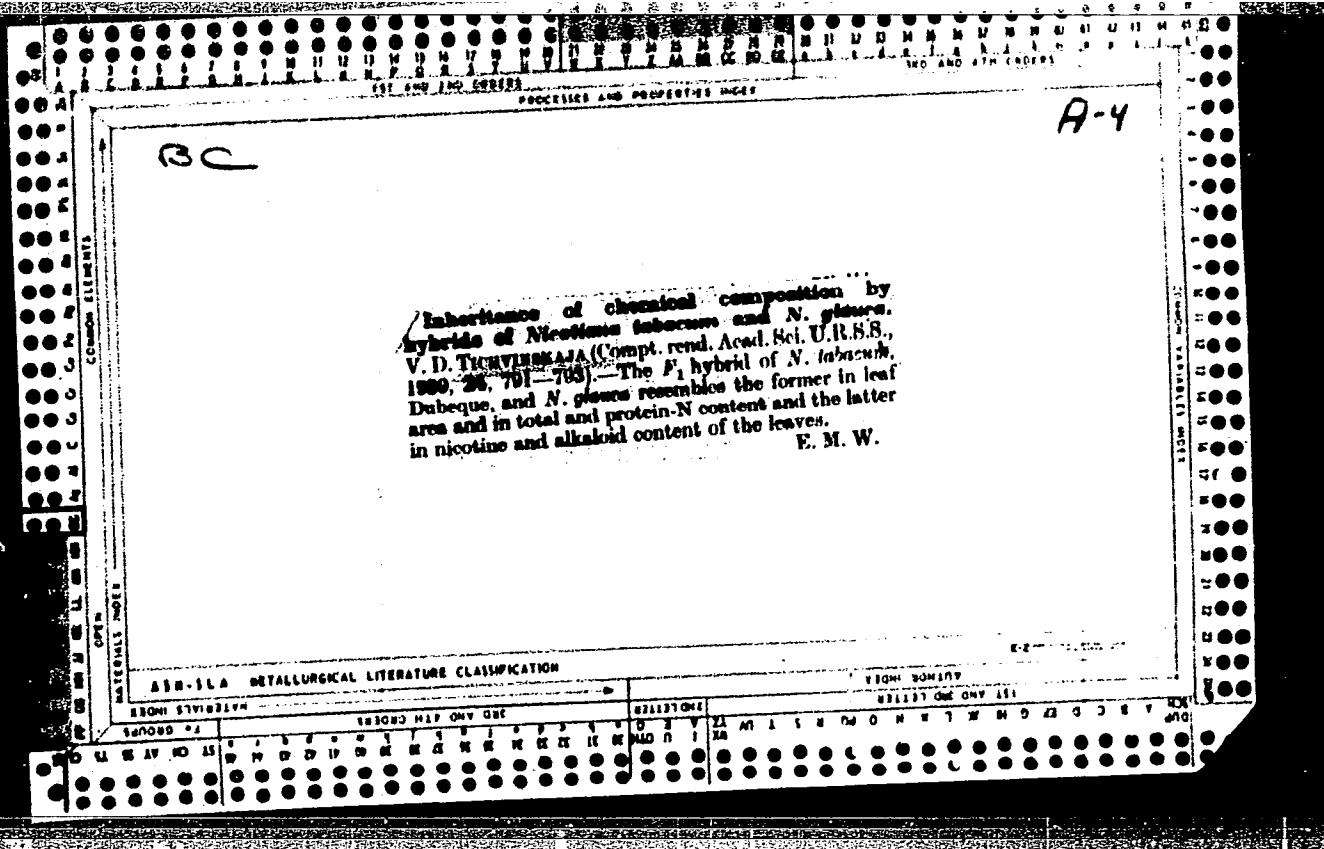
CIA-RDP86-00513R001755520019-6

TICAVINAKADA, P. T.

H. V. ILJIK, Zhur Khim Fizm, 1970, 18, n. 1, 84-85

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"



TICHY, A.

Tasks of railroad transportation in the Soviet Union; based on T. S. Khachaturov's book Fundamentals of the Economics of Railroad Transportation. p. 280.
ZELEZNICE, Prague, Vol. 4, no. 11, Nov. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Unclassified.

TICKY, A.

Janata, J.; Ticky, A.

Problem of production capacity in paper mills. P. 7

SC: East European Acquisitions List, Vol. 5, No. 9, Sept. 1954, Lib. of Congress

TICHY, A.

"Problem of Production Capacity in Paper Mills." p. 7, Praha, Vol. 9, no. 1/2, Jan./Feb. 1954.

SO: East European Acquisitions List, Vol. 3, No. 9, September 1954, Lib. of Congress

TICHY, C. PENKA, V.

The use of analogue computers in technical practice. p.78 (Nova Technika, Vol.2,
no.3, Mar. 1957) Praha

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

TICHY, C.

Servosimulation of the Research Institute for Radio Engineering. p.150.
(Slaboproudny Obzor, Vol. 18, No. 3, Mar. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

TICHY, F.

"Contribution to the Study of the Folklore of Workers", P. 35, (CESKY LID,
Vol. 40, No. 1, Feb. 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), 1G, Vol. 3, No. 12,
Dec. 1954, Uncl.

TICHY, F. : KARHUSICKY

"Our Workers' 'Song of Labor'; The Seventieth Anniversary of its Origin",
P. 193, (CESKY LID, Vol. 40, No. 5, Oct 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

TICHY, J.

PHASE I BOOK EXPLOITATION

CZECH/5188

Petržílka, Václav, Professor, Doctor, Corresponding Member of the Czechoslovak Academy of Sciences; Josef B. Slavík, Professor, Doctor, Engineer; Ivan Šolc, Doctor; Oldřich Taraba, Engineer, Doctor; Jan Tichy, Doctor, and Jiří Zelenka, Engineer

Piezoelektrina a její technické použití (Piezoelectricity and Its Technical Use) Praha, Nakl. Československé akademie věd, 1960. 534 p. 1,300 copies printed.

Sponsoring Agency: Československá akademie věd. Sekce matematicko-fyzikální. Scientific Editor: Emanuel Klier, Docent, Doctor; Reviewer: Josef Beneš, Professor, Doctor; Ed. of volume: Antonín Burda.

PURPOSE: The book is intended for students of schools of higher education, physicists, and for scientific and technical personnel concerned with the use of piezoelectricity in electrical engineering, construction, chemistry, biology, medicine, and other fields of science.

Card 1/17

Piezoelectricity and Its Technical Use

CZECH/5188

COVERAGE: The book consists of two parts. The first part deals with the basic physical properties of piezoelectric crystals, the vibrations of piezoelectric resonators, and the technology of producing crystal elements. The second part is devoted to applications of piezoelectric crystals in various branches of engineering, particularly the following: the control of the frequency of broadcasting stations and radio transmitters in general; the production of very selective filters used in long-distance telephone lines and single-sideband transatlantic radiotelephone systems; the production of stable oscillators and timekeeping systems; the generation of ultrasonic waves; and measuring technique. About twenty years ago a book written by two of the present authors, V. Petřílka and J. B. Slavík, was published under the title "Piezoelektrina a její použití v technické praxi" (Piezoelectricity and Its Uses in Engineering Practice). In 1951 the book "Piezoelektrina I" (Piezoelectricity I), written by V. Petřílka and consisting of a major expansion of the physics section of the earlier edition, was published. The present book, written in cooperation with former students of the

Card 2/17

Piezoelectricity and Its Technical Use

CZECH/5188

original authors, represents, therefore, a third version of their work. V. Petržilka edited Part I and also wrote Ch. I. I. Solc wrote Ch. V, Par. 4 of Ch. VII, and Ch. XI. J. Tichý wrote Ch. II (except Par. 6), Chs. III, IV (except Par. 6), VI (except Pars. 6 and 9), VII (except Pars. 4 and 5), VIII and IX. J. Zelenka wrote Par. 6 of Ch. VI, Par. 5 of Ch. VII, and Ch. X. V. Janovec, Candidate of Sciences, wrote par. 6 of Ch. II, dealing with ferroelectric materials, Par. 6 of Ch. IV, and, together with Doctor H. Arend, Par. 9 of Ch. VI. Part II was written by O. Taraba in collaboration with J. B. Slavík, who also edited this part of the book. The authors thank the following persons for help in editing the manuscript: J. Hanzl, Engineer; C. Höschl, Docent, Engineer; K. Hruška, Graduated Physicist; K. Kratochvíl, Graduated Physicist; J. Kraus, Engineer; J. Páty, Engineer; J. Rais, Docent, Doctor, Engineer; L. Sodomek, Graduated Physicist, and J. Smíd, Candidate of Sciences, Engineer. They also thank O. Bareš, Engineer, and Jar. Tarabova for help in drawing the figures and preparing the photographs in Part I and Part II, respectively. References follow each chapter, and a general list of 132 references is given at the end of the book. There is also

Card 3/17

Piezoelectricity and Its Technical Use

CZECH/5188

a glossary of translations of special terms in piezoelectricity into Czech from the following languages: Russian, English, French, and German.

TABLE OF CONTENTS:

PART I.

Ch. I. History and Meaning of Piezoelectricity	23
Ch. II. Nature of Piezoelectricity, Pyroelectricity, and Ferroelectricity	28
1. Polarization of the dielectric	28
2. Electrostriction	29
3. Piezoelectricity	30
4. Pyroelectricity	34
5. Electret	35
6. Ferroelectric substances	37
1) Definitions and crystallographic classification of ferroelectric substances	38

Card #/17

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6

2824 [REDACTED] and [REDACTED] and [REDACTED]
[REDACTED] and [REDACTED] and [REDACTED]

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

Tichy, Jan
Czechoslovakia/Radiophysics - Generation and Conversion of RF Oscillations, I-4

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35276

Author: Tichy, Jan

Institution: None

Title: Electric Equivalent Circuit of Piezoelectric Vibrators

Original

Periodical: Ceskosl. casop. fys. 1956, 6, No 3, 250-258; Czech

Abstract: None

Card 1/1

TICHY, Jiri (Praha 2, Gottwaldovo nábrezi 26)

Basilar artery thrombosis. Česk. neur. 22 no.2:133-144 Mar 59.

1. Neurologické oddelení KUNZ v Ústí n.L. prednosta prim Dr. E.
Ponca.

(CEREBRAL THROMBOSIS AND EMBOLISM, case reports,
basilar thrombosis (Cz))

TICHY, J.

New experiences with long-distance propagation of ultrashort waves. p.35. (Sdelovaci
Technika. Vol. 5, no. 2, Feb. 1957. Czechoslovakia)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

while in the arena it was between 80 and 100 ft P S Stetsonville

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

TICHY, J.; CAJKA, J.

A simple method for computing linear networks containing thermionic valves.
p. 374. (SLABOPROUDY OBZOR, Vol. 18, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

TICHY, Jiri; LEDVINA, Miroslav

Effects of spa treatment on blood cholesterol levels & other serum constituents in patients with signs of arteriosclerosis. Cas. lek. cesk. 97 no.4:104-107 24 June 58.

1. Sanatorium MZ SSSR v Karlovy Varech, prednosta K. D. Timankov.
(ARTERIOSCLEROSIS, ther.
mineral water, eff. on blood cholesterol levels &
other serum constituents (Cz))
(MINERAL WATER, ther. use
arteriosclerosis, eff. on blood cholesterol levels &
other serum constituents (Cz))
(CHOLESTEROL, in blood
eff. of mineral water in arteriosclerosis (Cz))

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

TICNY, J.

Chaloupka, P. Equivalent diagram of attenuated longitudinal and torsional vibrations in piezoelectric bars. p. 53.

SIAFPROMDY ORZOK, Praha, Vol. 16, no. 1, Jan 1955.

SC: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

MALEK, Jiri; LENNER, Zdenek; TICHY, Josef

Early diagnosis of pregnancy with a single pregnandiol test.
Cesk. fysiol. 4 no.2:224-229 May 55.

1. I porodnicka a gynekologicka klinika Karlovy university,
Praha.

(PREGNANCY TESTS,
pregnandiol test, one-stage technic)

(PREGNANDIOL, determination,
pregn. test, one-stage technic)

MALEK, Jiri, Asistent MUDr.; LENNER, Zdenek, MUDr.; TICHY, Josef, MUDr.

Determination of luteal phase of the menstrual cycle by a simple pregnandiol test. Cas. lek. cesk. 91 no.26:764-767 27 June 52.

1. Z I. gynækologické a porodnické kliniky Karlovy univerzity v Praze. Prednosta: prof. MUDr. Karel Klaus.

(MENSTRUATION,
luteal phase, determ., pregnandiol test)

(URINE,
pregnandiol, determ. of luteal phase of menstruation)
(PREGNANDIOL, in urine,
determ. of luteal phase of menstruation)

Tichy, J.

MALEK, J.; LENNER, Z.; TICHY, J.

Experimental findings on the metabolism of steroids. Cesk. gyn.
17 no. 5-6:254-261 1952. (CLML 23:1)

1. Of the First Obstetric-Gynecological Clinic (Head--Prof. K. Klaus,
M. D.) of Charles University, Prague.

KANDRAC, M.; KOSTIR, J.; KASPAROVA, J.; TICHY, J.

Reduction of progesterone in the organism. II. Methyl ketones
(pregnenolones) in pregnancy. Cas. lek. cesk. 93 no.7:161-163
12 Feb 54.

1. Z III. interni kliniky Karlovy univ. v Praze (predn. prof.
Dr. J. Charvat) a z Biochemickeho ustavu KU v Praze predn., doc.
Dr. J. Kostir.

(PREGNANCY, urine in,
 pregnenolone.)

(URINE,
 pregnenolone in pregn.)

(PREGNENOLONE, in urine,
 in pregn.)

TICHY, Jiri, MUDr.

Optokinetic nystagmus. Cesk. neur. 19 no.3:192-203 Aug 56.

1. Z neurologickeho oddeleni KUNZ v Usti n. Lab., predn. prim.

Dr. E. Ponca.

(NYSTAGMUS, physiol.
optokinetic, review (Cz))

TICHY, J.

Cancer and its relation to diseases with cholesterol metabolism
disorders; arteriosclerosis, cholelithiasis, diabetes mellitus
and liver cirrhosis. Cesk. lek. cesk. 92 no.37:1005-1016 11 Sept
1953. (CIML 25:4)

1. Of the Second Patho-Anatomical Institute (Head--Prof. V. Jedlicka,
M.D.) of Charles University, Prague.

MALEK, Jirii, As. MUDr., LENNER, Zdenek, MUDr.; TICHY, Josef, MUDr.

Pregnandiol elimination after administration of agolutin (alpha-progesterone) Spofa in suppositories. Cas.lek.cesk. 91 no.13:386-393. 28 Mar 52.

1. Z I. gynækologicke a porodnické kliniky university Karlovy.

Přednosta: prof. dr. K. Klaus.

(PREGNANDIOL, in urine,

after progesterone admin. in suppositories)

(PROGESTERONE, effects,

on pregnandiol elimination, after admin. in suppositories)

TICHY
Excerpta Medica Sec 16 Cancer Vol. 2/4 April 54

1652. TICHY J. 2. Path.-anat. Úst., Karlovy Univ., Praha. Rakovina ve vztahu k chorobám s porušenou výměnou cholesterolu-(arterioskleróz, cholelithiáze, diabetes mellitus a cirrhose jaterní) *Malignant growths in relation to diseases with disturbed cholesterol metabolism (arteriosclerosis, cholelithiasis, diabetes mellitus and hepatic cirrhosis)* Cas. Lék. čes. 1953, 92/37 (1005-1016) Graphs 5 Tables 12

The pathological metabolism of cholesterol in man leads to one of 2 possibilities: atherosclerosis and diabetes or malignant growth. This is illustrated by a detailed statistical analysis of 6,571 autopsies performed from the beginning of 1946 till the end of August 1952. No arteriosclerotic changes were found in 17.2% of men with malignant growth and in 11.6% in the control group without malignant growth. In women these values were 23.5 and 15.9% respectively. Severe arteriosclerotic changes were found in 11.1% of men with malignant tumours and in 37.7% of cases in the control group. In women these figures were 8.1 and 33.5%, respectively. The possibility of malignant growth in diabetics is 3 to 4 times smaller than in non-diabetics. Cholelithiasis and atrophic hepatic cirrhosis show a sexual difference: the possibility of malignant growth in female patients with cholelithiasis is as high as in those without. In men this possibility is slightly less. As regards cirrhosis the reverse holds true: women with this disease have malignant growths half as often as women without cirrhosis.

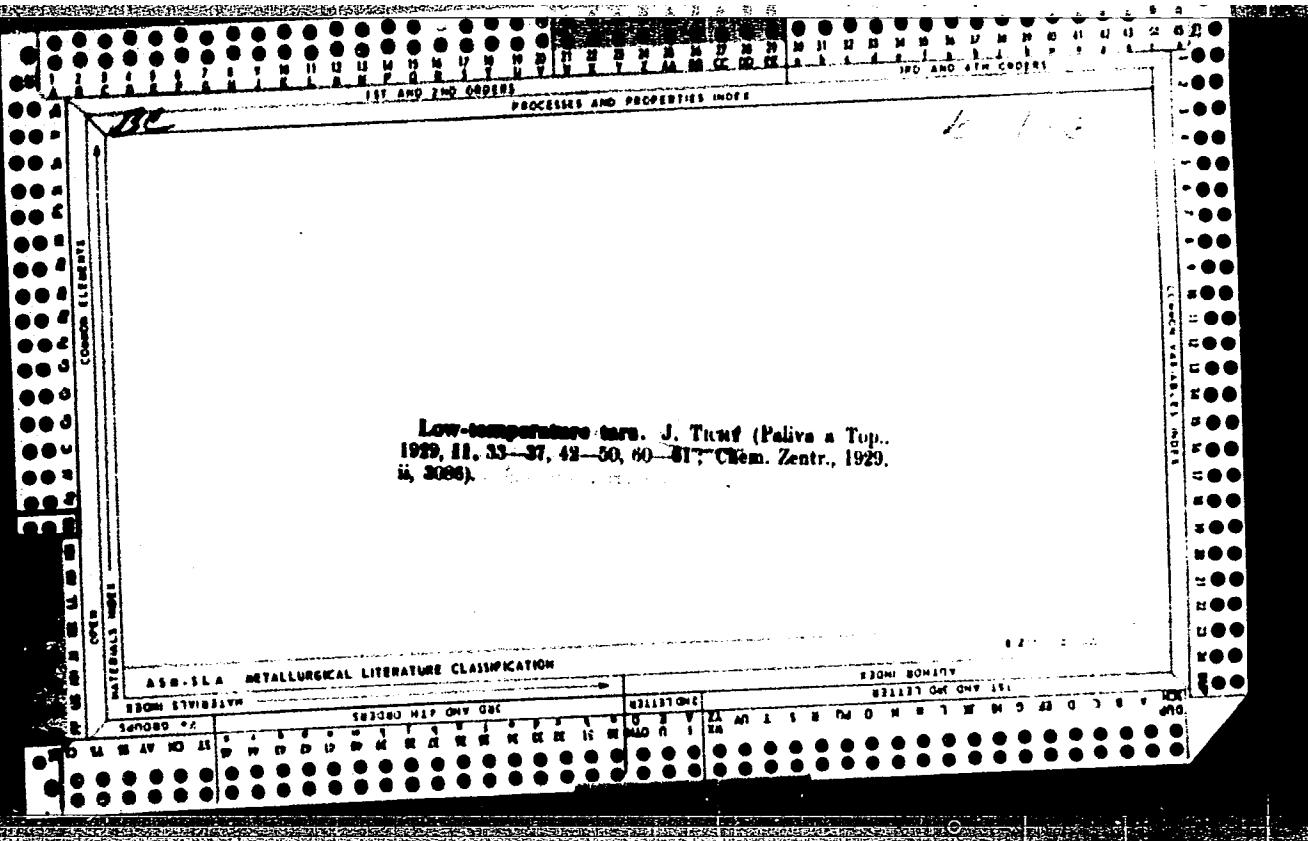
Bloch — Amsterdam

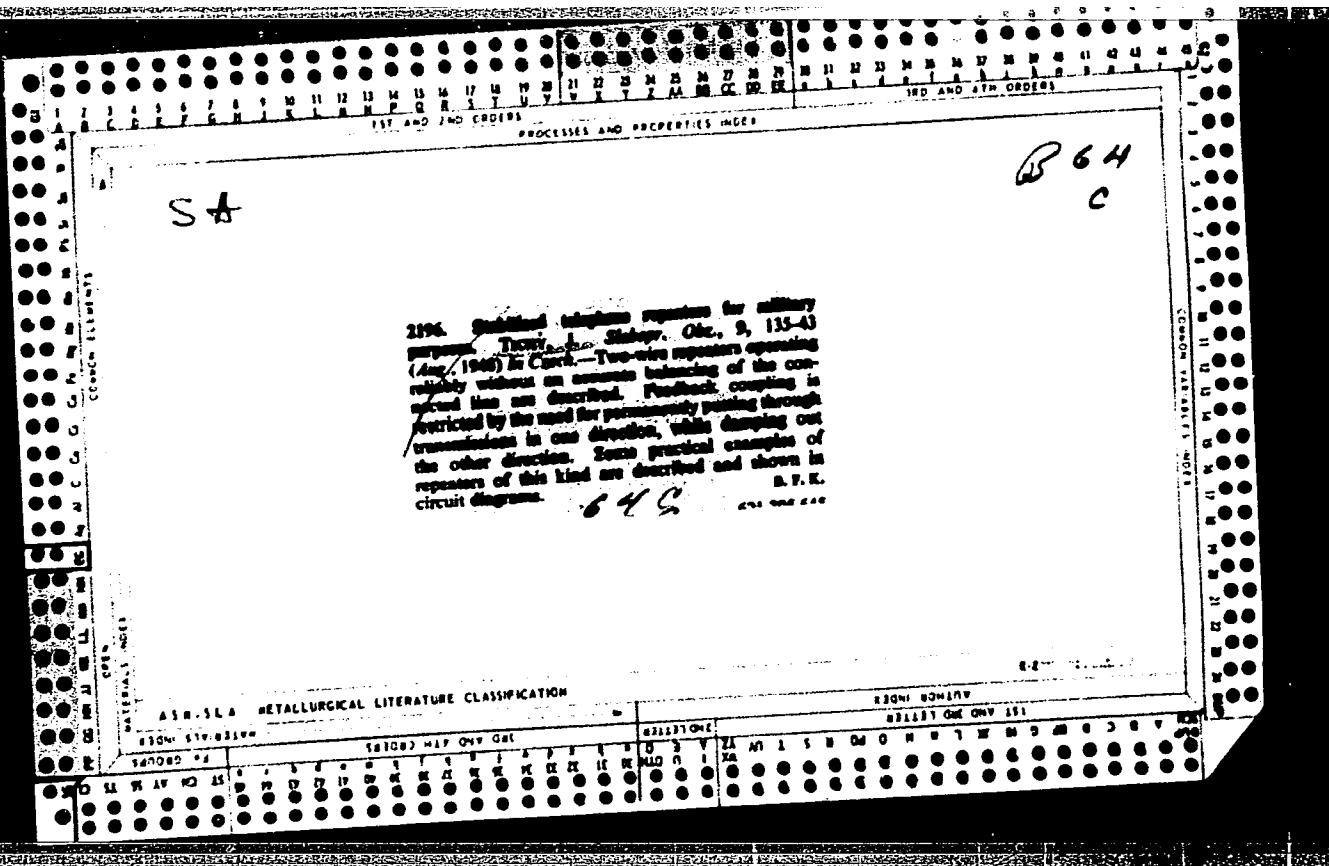
TICHY, JOSEF

CZECH

Daily rhythm of pregnanediol excretion. Jiri Málek,
Zdenek Lenher, and Josef Tichý (Lékařská fakulta, Prague,
Czechoslovakia). *Casopis Lékařů Českých* 93, 1297-301
(1964).—Urine of 9 pregnant women was collected during
several days in intervals of 6 hours. On an av. highest
concen. and overall excretion of pregnanediol was observed
in the first collection period (midnight-6 a.m.) whereas
diuresis reached the peak value in the last period (6 p.m.-
midnight).

J. M. Haile





22

CPA

The catalytic cracking of paraffin oils. JAROSLAV TICHLÍČEK, Palitu a Topení 11, 85-9, 100-2(1929).—Cracking paraffin oils with catalysts yielded products contg. aromatic hydrocarbons although the original oil did not contain them; the usual unsatd. hydrocarbons were present. Cracking was carried out in 500 g. batches in a rotating autoclave (capacity 1830 cc.). Cracking without catalysts yielded 95.8% of oil (contg. 30% of unsatd. and aromatic compds.) and 2% of gas (CH₄ 65%, C₂H₆ 13%, H₂ 23%) in 180 min. ZnCl₂ decreased the cracking time by 45 min. The oil yield was 96.1%, gas 1.6%. ZnCl₂ functioned as a dehydrogenator; the gas was chiefly H₂ (CH₄ 29.4%, C₂H₆ 12.8%, H₂ 61.7%). The oil contained 25% of unsatd. and aromatic compds. and 75% of paraffins. Anhyd. AlCl₃ showed a marked cracking with polymerization. The gas yield was 3.7% (CH₄ 48.4%, C₂H₆ 11.3%, H₂ 33.4%); the oil (yield 95.5%) contained 4% of unsatd. and 24% of aromatic hydrocarbons. Heavy hydrocarbons were present in the gas, indicating a catalytic polymerization by AlCl₃; NiCl₂ and CuCl₂ work similarly. NiCl₂ yielded 4.7% of gas (CH₄ 60.5%, C₂H₆ 15.8%, H₂ 19.0%) and 91.0% of oil; CoCl₂ yielded 2.0% of gas (CH₄ 57.0%, C₂H₆ 12.0% and H₂ 24.0%) and the cracked-oil yield was 93.0%. SnO showed a very destructive action. The gas yield (3.5%) showed CH₄ 73.0%, C₂H₆ 13.8%, H₂ ~ 5.8%; the oil (yield 93.9%) contained 18% of neutral oil, 17% of aromatic and 15% of unsatd. hydrocarbons. Cr₂O₃, MoO₃ and WO₃ worked similarly. Cr₂O₃ removed large quantities of H₂. The gas (yield 2.8%) contained CH₄ 81.2%, C₂H₆ 8.6% and H₂ 8.2%. MoO₃ yielded the oils with the highest density. An 10 mixt. (300 mg. In per 100 kg) yielded 3.8% of gas (CH₄ 61.2%, C₂H₆ 13.2%, H₂ 27.0%) and 94% of cracked oil contg. 18% of unsatd., 22% of aromatic and 60% of paraffin hydrocarbons. Ra discs (4 g. Ra per 100 kg. protactinium) yielded 3.7% of gas (CH₄ 53.4%, C₂H₆ 13.8% and H₂ 23.5%) and 94.5% of cracked oil contg. 18% of unsatd., 18% of aromatic and 64% of

OVER

AIR-SEA METALLURGICAL LITERATURE CLASSIFICATION

TECHNICAL REPORT

TECHNICAL INFORMATION

MANUFACTURING

MANUFACTURE

MANUFACTURER

MANUFACTURERS

CA

The catalytic cleavage and hydrogenation of low-temperature tars. JAROMÍR TICHT. Patents Topčík 11, 109-16, 125-33, 141-9(1920).—Heavy fractions of tars were cleaned of fractions b, below 220° and catalyzed in 600 g. lots. A rotating autoclave with 2.8-l. capacity was used. (1) The catalysts SnO₂, AlCl₃, Fe₂O₃, ZnCl₂ and NiCl₂ applied to tar from the coal Hedvika favor both cracking and hydrogenation. AlCl₃, Fe₂O₃ and ZnCl₂ are chiefly cracking catalysts; the cleavage products have an increased sp. gr. NiCl₂ reacted primarily as a hydrogenator. (2) Tar Švarcna was cracked and hydrogenated with CoCl₂, CdCl₂ and AlCl₃. Marked cracking occurred with all catalysts, the gas contg. CH₄ 20-30%, C₂H₆ 0-18%, H₂ 51-71%. The production of unstd. hydrocarbons in the residue was the same for all catalysts. CoCl₂ and AlCl₃ had an equal power of cracking and hydrogenating; CdCl₂ was chiefly a cracking catalyst. (3) Tar from the coal Prokop was catalyzed with SnO₂, Fe₂O₃ and AlCl₃. The SnO₂ and Fe₂O₃ were equally effective in cracking and in hydrogenation. Hydrogenation produced fractions (below 220°) lower in sp. gr. than those produced by the cracking process; hydrogenation also produced a larger quantity of unstd. hydrocarbons in the neutral oil. AlCl₃ functioned chiefly as a cracking catalyst; the H atm. favored the evolution of light fractions and decreased the gas formation. (4) Tar from the coal Hirabk was cracked and hydrogenated with Cr₂O₃, SnO₂, CdO₂, MoO₃, WO₃, AlCl₃, Io, Ra-Act discards. The most powerful cracking catalysts were AlCl₃, WO₃ and Ra discards. All catalysts hastened the decompr. of oils, especially AlCl₃. AlCl₃ is effective in cracking, not in hydrogenation; WO₃ is equally effective in both processes. MoO₃ and Io are chiefly hydrogenation catalysts; MoO₃ produces few unstd. hydrocarbons in the neutral oil. (The Ra mist, contained 4 mg. Ra per 100 kg. matter.) (5) The H absorbed during the hydrogenation of coal is greater than when tars are used. The chief catalysts for hydrogenating are ZnCl₂, NiCl₂, CdCl₂, AlCl₃ and MoO₃. The presence of phenol and bases has no influence upon the catalysis; the decompr. of highly complex phenols yielded new portions of oil. The products contained aromatic, hydroaromatic and unsat. hydrocarbons in addn. to the neutral oils.

FRANK MARKSH

ASB-LSA METALLURGICAL LITERATURE CLASSIFICATION

CZECHOSLOVAKIA/Radio Physics - Radiation of Radio Waves. Transmission I-4
Lines and Antennae

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 1557
Author : Cernohorsky Dusan, Tichy Jaroslav
Inst : -
Title : Ferrite Antennas

Orig Pub : Slaboproudny obzor, 1958, 19, No 2, 86-91

Abstract : A brief review of ferrite antennas. The following principal characteristics of such antennas are considered: directivity pattern, effective height (h), efficiency, figure of merit (Q), and the product hQ , all as functions of the choice of the geometry and the ferromagnetic substance of the antennas. Particular attention is paid to an examination of the influence of the surrounding metallic objects on the parameters of a ferrite antenna. A comparison is made between the properties of ferrite and wire antennas on the basis of conclusions of the theory and the results of the experimental investigation. Bibliography, 12 titles.

Card

: 1/1

V.I. Medvedev

52

CZECHOSLOVAKIA/Acoustics - Noise

J

Abs Jour : Ref Zhur Fizika, No 8, 1959, 18784

Author : Tichy, J., Vondrus, K.

Inst :

Title : Noise Conditions in Steam Electric Stations

Orig Pub : Energetika (Ceskosl.), 1958, 8, No 12, 553-556

Abstract : The author analyzes the causes of noise and measures the intensity and spectrum of the noise in various parts of the electric stations.

Card 1/1

81756

Z/037/60/000/04/009/01⁴

E073/E535

24,7800

AUTHORS: Tichý, Jan and Zelenka, Jiří

TITLE: Longitudinal and Contour Shear Vibrating Piezoelectric Resonators from Synthetic Quartz

PERIODICAL: Československý časopis pro fysiku, 1960, No 4,
pp 328-332

ABSTRACT: To verify their properties, measurements were made on longitudinally vibrating narrow XYt_{-φ}-cut rods (for φ = 0° to 5°) and square-shaped DT-cut plates (YXt_{52°30'}). Two sets of resonators were produced, one was made of natural and the other of synthetic quartz single crystals. All the synthetic quartz specimens were produced from a single monocrystal weighing 0.8 kg and grown from a germination in the form of a plate, with the thickness in the direction of the Z-axis, at a temperature of 300-350°C and a pressure of about 400 atm. Data of the resonators are given. The oscillations were generated by means of a Heegner oscillator for which it could be ✓

Card 1/4

81756

Z/037/60/000/04/009/014
E073/E535

Longitudinal and Contour Shear Vibrating Piezoelectric Resonators
from Synthetic Quartz

assumed that it excited series resonance in the quartz crystal. Care was taken that in generating the oscillations the voltage of the resonator should be as low as possible and that it should have a purely sinusoidal characteristic. In measuring the temperature dependence the resonators were sealed into evacuated glass ampoules, which were placed into an airstream which could be heated or cooled as required; the measurements were carried out with an accuracy of $\pm 0.5^{\circ}\text{C}$ for at least 20 mins. The results of the measurements are described and discussed. The results proved that the piezoelectric and the elastic properties of synthetic single quartz crystals grown from germinations of the Z cut are fully satisfactory and such crystals are suitable for generating longitudinal and "contour shear" vibrating piezoelectric resonators. The slight differences in the location of the peaks of the parabola of the temperature dependence of the frequencies of narrow

Card 2/4

81756

Z/037/60/000/04/009/014
E073/E535

Longitudinal and Contour Shear Vibrating Piezoelectric Resonators
from Synthetic Quartz

longitudinally vibrating rods can be excluded by appropriate selection of the orientation of the cut used. For achieving an equal temperature dependence of the frequency of longitudinally vibrating rods of the cut XYt_{-φ}, it is necessary to apply in resonators with synthetic quartz crystals an angle φ smaller by about 1°. The dynamic inductance and the Q of resonators made of natural and synthetic quartz crystals are approximately equal. For contour shear vibrating DT-cut crystals made of synthetic quartz, the inductance is about 4% smaller and the Q is about one-third lower than it is for resonators with natural quartz crystals. Similarly, the temperature dependence curve is shifted and the zero temperature dependence of the frequency is achieved at temperatures approximately 7°C lower than for natural quartz crystals. There are 2 figures, 3 tables and 15 references, 2 of which are Czech, 4 Soviet, 2 German, 1 Swiss, 1 Polish and 5 English.

Card 3/4

4

81756

Z/037/60/000/04/009/014
E073/E535

Longitudinal and Contour Shear Vibrating Piezoelectric Resonators
from Synthetic Quartz

ASSOCIATIONS: Katedra matematiky a fysiky Vysoké školy strojní
v Liberci (Chair of Mathematics and Physics, Mechanical
Engineering, Technical University, Liberec) (Tichý)
and Tesla Lanškroun, závod 05 v Hradci Králové
(Tesla Lanškroun, Plant 05, Hradec Králové) (Zelenka)

SUBMITTED: January 28, 1960

Card 4/4

4

TICHY, St.

Value of direct hypopharyngoscopy in laryngeal tumors. Cesk.otolar.
9 no.6:359-366 D '60.

1. Otolaryngologicka klinika lekarske fakulty University Karlovy,
klinicka otolaryngologicka laborator, vedouci akademik Ant.Precechtel.
(LARYNX neopl)

GOIA, I., prof.; CHIRTOC, Gh., dr.; TICLETE, I., dr.; DUJU, Alex., dr.

Diencephalic syndromes in the course of rheumatic disease.
Med. intern. 15 no.7:785-792 J1 '63.

1. Lucrare efectuata in Clinica a II-a medicala, Cluj.
(RHEUMATISM) (NEUROLOGIC MANIFESTATIONS)
(DIENCEPHALON) (POLYURIA)

PICUTA, V., Ing.

Reduced consumption of wooden material. Decree Dec 16 no.703
26 December '64.

I. General Department of Constructions and Assembly, Ministry of
the Construction Industry.

TIDEN, N.V., inzh.

Earth and rock excavation work. Energo.stroi. no.23:54-60 '61.
(MIRA 15:1)
(Kremenchug Hydroelectric Power Station--Excavation)

TIDZHIYEV, K.A.

Increase the production of "strong" wheat in Rostov Province.
Zemledie 8 no.6:20-22 Je'60. (MIRA 13:10)

1. Glavnny agronom Rostovskogo oblastnogo upravleniya sel'skogo
khozyaystva. (Rostov Province---Wheat)

~~TIEFENBACH, Branka, dr.; BUZINA, Ratko, dr.; VOUK, Velimir, dr.~~

Value of certain blood variables in blood-donors in Zagreb.
Lijec. vjes. 81 no. 9-10:637-645 '59.

1. Iz Centralnog Higijenskog zavoda u Zagrebu i Instituta za
medicinska istraživanja Jugoslavenske Akademije znanosti i
umjetnosti u Zagrebu.
(BLOOD DONORS)

TIEGERMANN, T., dr.; DANCHIUESCU, I., dr.; BUCUR, Gh., intern; LANDMAN, S.,
extern

Considerations on the vascular hypertensive syndrome in chronic
pyelonephritis. Med. intern., Bucur 12 no.11:1671-1676 N '60.

1. Lucrare efectuata in Clinica medicala a Spitalului "I.C. Frimu",
I.M.F. Bucuresti.
(PYELONEPHRITIS complications) (HYPERTENSION)

TIEGERMAN, T., dr.; GEORGESCU, I. St., dr.; MAXIMILIAN, V.V.

Considerations on the diagnosis of chronic pyelonephritis.
Med. intern. 14 no.2:213-220 F '60.

1. Lucrare efectuata in Clinica medicala, Spitalul "I. C. Frimu",
I.M.F., Bucuresti.
(PYELONEPHRITIS diagnosis)

*C. a.**Original document
10**1951*

Synthesis of a derivative of Isothiourea. Z. Procházka,
R. Tichý, and Z. Svoboda (United Pharm. Works, Prague,
Czech.). *Chem. Listy* 45, 42-3 (1951).—*CH₂CHCH(OH)₂*
(I) with 2 moles CS(NH₂)₂ (II) gives 2-(2-amino-5-thiazoly)-
2-thiopseudoura (III), identical with the product of the reac-
tion between II and 2-amino-5-chlorothiazole (IV). II
(40 g.) in 80 ml. HCl boiled 2-3 hrs. with 40.2 g. I gave
32.2 g. III·2HCl; III, m. 210° (decompn.) (from concd.
HCl). IV (1.5 g.), 0.84 g. II, and 1.5 ml. concd. HCl
boiled 1 hr. yielded 1 g. III·2HCl. M. Hudlický

TICHY, M.

Stereochemical studies. XVII. Dissociation constants of cyclohexanecarboxylic acids⁷ and cyclohexylamines and conformational equilibria. M. Tichy, J. Jonáš, and J. Sicher (Čsl. akad. věd, Prague). Collection Czechoslov. Chem. Commun. 24, 3434-41 (1969); cf. C.A. 63, 21181i. The free energy difference between the axial and equatorial form was found to be 1.6 ± 0.3 kcal. for the free, and 2.2 ± 0.3 kcal. for the ionized carboxyl group in the following acids: cyclohexanecarboxylic (I), *cis*- and *trans*-4-methylcyclohexanecarboxylic (II, III), *cis*- and *trans*-3-*tert*-butylcyclohexanecarboxylic (IV, V), and *cis*- and *trans*-4-*tert*-butylcyclohexanecarboxylic (VI, VII). The calcs. were made on the basis of measurements of the dissoci. consts. in 80% Methyl Cellosolve using IV, V, VI, and VII as "axial and equatorial standards." Similar, though not so conclusive, data were collected from cyclohexylamines: cyclohexyl (VIII), *cis*- and *trans*-4-methylcyclohexyl (IX, X), and *cis*- and *trans*-4-*tert*-butylcyclohexyl (XI, XII). I, from CO₂ and C₆H₅MgBr, m. 31-2° (petr. ether at -50°). Hydrogenation of β -MeC₆H₅CO₂H in AcOH (over PtO₂) at 45° and atm. pressure afforded II, b.p. 139.0°, m. 28-0.5°. β -MeCC₆H₅Ac (76 g.) added with stirring at 60° to a NaOBr soln. prep'd. from 144 g. NaOH and 270 g. Br in 1200

ml. H₂O, the temp. allowed to rise to 95°, kept at 95° for 20 min., the mixt. dild. with H₂O, extd. with Et₂O, treated with SO₂, acidified with HCl, and the product filtered and crystd. gave 62 g. (80%) β -MeCC₆H₅CO₂H, m. 165-6° (ligroine). Thus (10 g.) hydrogenated over PtO₂ in AcOH

gave 3.2 g. VI, m. 117.5-18° (from EtOH, C₆H₆, and AcOEt, successively); Me ester (from VI and CH₃Na) b.p. 102-3°, n_D²⁰ 1.4557. Combined mother liquors from the crystn. of VI evapd. to dryness, dissolved in 60 ml. (CH₃OH)₂, refluxed 7 hrs. with 20 g. KOH, the mixt. dild. with 250 ml. H₂O, acidified with HCl, and the sepd. product crystd. from C₆H₆ gave 3.4 g. VII, m. 175.5-0°. Hydrogenation of 40 g. β -AcNHC₆H₅Me in 100 ml. AcOH over 4 g. PtO₂ at 65°, distn. of the product at 105-0° at 0.3 mm., and crystn. (3 from cyclohexane, 2 from C₆H₆) gave 2.3 g. *N*-acetyl deriv. of X, m. 140.5-1°; refluxing with HCl afforded 65% X, b. 146-0°, n_D²⁰ 1.4500; HCl salt m. 260.5-1.5° (EtOH-X, b. 146-0°, n_D²⁰ 1.4583; HCl salt m. 233-4° (EtOH-MeCO); Bz deriv. m. 180-0.5° (aq. EtOH)). From the mother liquors, after the crystn. of X, 2.5 g. *N*-acetyl deriv. of IX, m. 98.6-0.5° (cyclohexane and C₆H₆) was obtained. Hydrolysis gave IX, b. 140-7°, n_D²⁰ 1.4583; HCl salt m. 233-4° (EtOH-MeCO); Bz deriv. m. 130-0.5° (EtOH). VI (2.26 g.) in 30 ml. concd. H₂SO₄ and 15 ml. CHCl₃, treated at 40-5° during 30 min., with 2.7 g. NaN₃ with stirring, heated for 30 min. at 50°, the mixt. poured on ice, the aq. layer extd. with Et₂O, alkalinized with KOH, the liberated base extd. with Et₂O, and the ext. dried (MgSO₄) and distd. gave 1.4 g. (73.7%) XI, b.p. 76-8°, n_D²⁰ 1.4079; HCl salt m. 280-1° (H₂O); Bz deriv. m. 157-7.5° (EtOH).

Similarly VII was converted to 60.3% XII, b.p. 77-8°, n_D²⁰ 1.4648; HCl salt m. 311-12° (EtOH); Bz deriv. m. 180-0.5° (MeCO). The dissoci. consts. in 80% Me cellosolve at 20° (pK_a) for I through XII were: 7.43, 7.66, 7.42, 7.41, 7.06, 7.01, 7.43, 9.51, 9.44, 9.50, 9.24, 9.50. M. Hudlický

TIDZHIYEV, K.A.

High-quality seed is an important factor in increasing crop
yield. Zemledelie 8 no.2:9-13 p '60. (MIRA 13:5)
1. Glavnny agronom Rostovskogo oblastnogo upravleniya sel'skogo
khozyaystva.
(Field crops)

EXCERPTA MEDICA Sec. 12 Vol.11/11 Ophthalmology Nov57.
TICHY J.

1815. TICHY J. Neurol. Odd. KÚNZ v Ústí. *Optokinetic nystagmus. Opto-
kinetic nystagmus ČSL. NEUROL. 1956, 19/3 (192-203) Tables 2
Illus. 4

Optokinetic nystagmus (o.n.) is in man a cerebral reflex, dependent on the activity
of the cortical optic analyser. The o.n. differs thereby from that of lower animals.
The o.n. testifies the 'central' vision. It develops in man during the 3rd to 4th
month of postnatal life; the slow component appearing first. The 'optokinetic zone'

1815

CONT.

of the brain is extensive. The occipital and frontal lobe contribute to an important degree. In unilateral lesions interrupting the occipitofrontal connection a disturbance occurs of the horizontal optokinetic nystagmus always to the opposite side. It is of a definite diagnostic value. Absence of the optokinetic response does not depend on a lesion of the sensory visual pathway but on a disturbance of the optomotor pathway. The o.n. differs from the vestibular nystagmus. They have in common only the efferent system. The o.n. is of high localizing value for the lateralization of the morbid process. The experimental physiological conditions of the optokinetic nystagmus are still poorly known. Extensive bibliography.

Henner - Prague (VIII, 12)

Czechoslovakia/Acoustics - General Problems, J-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35535

Author: Tichy, Jiri

Institution: None

Title: Procedure for Measuring Sound Absorption with the Standing-Wave Method

Original

Periodical: Slaboproudý obzor, 1956, 17, No 4, 197-202; Czech; Russian, German, English, and French resumes

Abstract: Analysis of a method for measuring absorption of sound with normal incidence of sound waves, as well as of the conditions under which this method is sufficiently accurate. The dependence of the coefficient of absorption on the frequency is given for many materials, measured also in a reverberation chamber.

Card 1/1

TICHY, Jiří, MUDr; TICHA, Hana, MUDr

Cholelithiasis and atherosclerosis. Cas. lek. česk. 93 no.49:1350-
1352 3 Dec 54.

1. v II. patologicko-anatomického ústavu Karlovy univerzity v
Praze, prednosta prof. Dr. V. Jedlicka (for Tichy)

(CHOLELITHIASIS, complications
arteriosclerosis, statist. survey)
(ARTERIOSCLEROSIS, complications
cholelithiasis, statist. survey)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001755520019-6"

TICHY, J.

"75th anniversary of the discovery of the piezoelectric effect." P. 523.

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV). Praha, Czechoslovakia, Vol. 16, No. 10, Oct. 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 8,
August 1959.
Uncla.

TICHY, J.; KOLMER, F.

Theoretical determination of absorptive properties of perforated porous material, p. 9

Ceskoslovenska vedecka technika spolecnost pro zdavotni techniku a
vzduchotechniku, Praha, Czechoslovakia, Vol. 4, 1959.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, No. 7, July 1959.

(Uncl)

TICHY, J.; PODOBISKY, J.; SLAYIK, J.

Research of high-pass acoustic filters, p. 67

Ceskoslovenska vedecka technika spolecnost pro zdrojovni techniku a
vzduchotechniku, Praha, Czechoslovakia, Vol. 4, 1959.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, No. 7, July 1959.
Uncl.

AUTHORS: Zelenka, Jiří and Tichý, Jan 06626
TITLE: Experimental Confirmation of Relations Used for CZECH/37-59-5-2/13
Designing Longitudinally Oscillating Piezoelectric Specimens
PERIODICAL: Československý časopis pro fysiku, 1959, Nr 5,
pp 463 - 472
ABSTRACT: The electrical properties of a piezoelectric crystal oscillating with its k-th resonance frequency can be described by an equivalent circuit consisting of the dynamic capacity C_R in series with the ohmic resistance R_h and the induction L_h . Parallel to these is the static capacity C_0 (see Figure 1). In some cases, it is possible to predict the electromechanical behaviour of a crystal, i.e. the values of the components of the equivalent circuit, from the knowledge of the dielectric properties of the bulk material and from the angle of cut of the piezoelectric crystal. Cady (Ref 5), van Dyke (Refs 9, 10) and Dye (Ref 8) have derived equations for computing the equivalent circuit

Card1/4

06626

CZECH/37-59-5-2/13

**Experimental Confirmation of Relations Used for Designing
Longitudinally Oscillating Piezoelectric Specimens**

for the fundamental and the odd harmonic oscillations of piezoelectric crystals. Chaloupka, Tichý and Zelenka (Refs 13, 14, 19, 21) have dealt with even harmonics. Cady (Ref 6) has discussed the approximations involved in such derivations. Very few measurements to verify the theoretical relations have, however, been published (Refs 1,2).

The present authors have used three sets of quartz crystals, whose dimensions etc. are described. L_h and C_h were determined by measuring the change in the resonance frequency of the system due to the addition of a known capacity in series with the crystal (Refs 18, 20). The frequency was measured to an accuracy of 0.1 c/sec. R_h was measured by a substitutional method. The following oscillations were studied: on the first set of crystals the fundamental and the third harmonic longitudinal oscillation. On the second set, the second harmonic longitudinal oscillation, on the third

Card2/4

06626

CZECH/37-59-5-2/13

Experimental Confirmation of Relations Used for Designing Longitudinally
Oscillating Piezoelectric Specimens

(unsilvered) set, only the fundamental longitudinal
oscillation.

Except for the third harmonic, all resonance frequencies
were in good agreement with the well-known equation (1).
The lack of agreement with this equation of the third
harmonic is probably due to coupling with other modes and
to the finite thickness of the crystals.

For the theoretical calculation of L_h and C_h we have
used equations (3) and (4) (Ref 14).

Figure 3 shows the dependence of L_h on the angle of
cut of the crystal both for silvered and unsilvered
samples. The frequencies were the fundamental frequency
and the third harmonic. Figure 4 shows the same
dependence for the second harmonic on a silvered sample.
Agreement between theory and experiment is good for the
fundamental and second harmonic, but not for the third
harmonic oscillation.

Card3/4

06626

CZECH/37-59-5-2/13

Experimental Confirmation of Relations Used for Designing Longitudinally Oscillating Piezoelectric Specimens

The agreement between theory and experiment enables one to determine the piezoelectric coefficients from the equivalent circuit. The main advantage of the confirmed agreement is the possibility of designing crystal filters with well predictable characteristics.

There are 6 figures, 2 tables and 21 references, of which 7 are Czech, 9 English, 4 German and 1 Soviet.

ASSOCIATIONS: Tesla, Hradec Králové.

Katedra matematiky a fysiky Vysoké školy strojní v Liberci
(Faculty of Engineering, Liberec)

SUBMITTED: February 4, 1959

Card 4/4

TICHY, J.

II. Path.-anat. Ust. Karlovy Univ., Praha. *Rakovina ve vztahu k chorobam s porusenou vymenou cholesterolu-(arteriosklerose, cholelithiasis, diabetes mellitus a cirrhose jaternni). Malignant growths in relation to diseases with disturbed cholesterol metabolism (arteriosclerosis, cholelithiasis, diabetes mellitus and hepatic cirrhosis) CAS. Lek. CES. 1953, 92/37 (1005-1016) Graphs 5 Tables 12

The pathological metabolism of cholesterol in man leads to one of two possibilities: atherosclerosis and diabetes or malignant growth. This is illustrated by a detailed statistical analysis of 6571 autopsies performed from the beginning of 1946 till the end of August 1952. No arteriosclerotic changes were found in 17.2 % of men with malignant growth and in 11.6 % in the control group without malignant growth. In women these values were 23.5 and 15.9 % respectively. Severe arteriosclerotic changes were found in 11.1 % of men with malignant tumours and in 37.7 % of cases in the control group. In women these figures were 8.1 and 33.5 % respectively. The possibility of malignant growth in diabetics is 3 to 4 times smaller than in non-diabetics. Cholelithiasis and atrophic hepatic cirrhosis show a sexual difference: the possibility of malignant growth in female patients with cholelithiasis is as high as in those without. In men this possibility is slightly less. As regards cirrhosis the reverse holds true: women with this disease have malignant growths half as often as women without cirrhosis.

Bloch - Amsterdam (VI, 5, 16) (OVER)

TICHY, Josef

MALEK, Jiri, As. MUDr; LENNER, Zdenek, MUDr; TICHY, Josef, MUDr

Daily rhythms in pregnandiol excretion. Cas. lek. cesk. 93 no.47:
1297-1301 19 Nov 54.

1. v I. porodnicke a gynekologicke kliniky Karlovy university v
Praze. Prednosta: Prof. MUDr. Karel Klaus
(PREGNANDIOL, in urine
in pregn. daily periodicity of excretion)
(URINE
pregnandiol in pregn. periodicity of excretion)

TICHY
MALEK, Jerzy; LENNER, Zdenek; TICHY, Jozef

Practical method of determination of pregnadiol. Gin. polska
25 no.4:367-374 Oct-Dec 54.

1. Z I Kliniki Chorob Kobiecych i Poloznictwa Uniwersytetu im.
Karola w Pradze (Czechoslowacja) Kierownik: prof. dr Karol Klaus.
(UTERINE,
pregnadiol, determ.)
(PREGNANDIOL, in urine,
determ.)

Tichy, K.

Tichy, K. Gottwaldov motorists organize drivers' courses well. p. 135.

-an-. Frantisek Bartos, a modest driver from Ustrava. p. 136.

Technical certificate for racing and sport motorcycles. p. 137.

Vol. 10, no. 5, Mar. 1956

SVET MOTORU

TECHNOLOGY

Czechoslovakia

So: East European Accessions, Vol. 6, May 1957

No. 5

TICHY, K.

"League for Cooperation With the Army Fulfills the Resolution of the 10th
Congress of the Communist Party of Czechoslovakia", P. 581, (SVET MOTORU,
Vol. 8, No. 19, Sept. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

TICHY, K.

"Work Methods of the Council of the District Automobile-Motorcycle Club in the Preparation of the Plan." p. 678 (SVET MOTORU. Vol. 8, No. 22, Oct. 1954; Praha, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Unclassified.

TICHY, K.

"Training Plan of the District Automobile-Motorcycle Club Fulfilled." p. 745
(SVET MOTORU. Vol. 8, No. 24, Nov. 1954, Praha, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4,
April 1955, Uncl..

TICHY, A.

"Program of the Automotor Club of the League for Cooperation with the Army in Gottwaldov for the 3d quarter of 1953." p. 546. (Svet Motoru. Vol. 7, no. 154, Sept. 1953. Praha.)

SO: Monthly List of East European Accessions, Vol. 3, no. 6, Library of Congress, June 1954.
Uncl.

TICHY M.

Differential diagnosis of the blood sedimentation rate in pregnancy.
Cesk. gyn. 15:4-5 1950. p.242-52

1. Of the Third Gynecological and Obstetrical Clinic (Head --
Prof. Jiri Trapl, M. D.), Charles University, Prague.

CML 19, 5, Nov., 1950

TICHY, M.; FINKOVA, A.

Organization of prenatal care in the institute of maternal and
child welfare in Prague. Prakt. lek., Praha 31 nos.13-14:306-309
5 July 1951. (CIAL 21:1)

TICHY, M.; SICHER, J.

"Stereochemical studies. XII. Absolute configuration of conhydrine and β -conhydrine." (In English)

COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS.. Praha, Czechoslovakia,
Vol. 23, no. 11, Nov. 1959

Monthly list of EAST EUROPEAN ACCESSIONS (FEAI), LC, Vol. 8, No. 7, July 1959, Unclass.

Tichy, M.

CZ/8-52 (82)-10-19/39

AUTHORS: Broboda, M., Tichy, M. and Sicher, J.
TITLE: Stereochemical Studies. XI. (Stereochemical Studies. XI)
 Synthesis of cis- and trans-2-Aminocyclohexanol
 and 2-Aminocycloheptadecanol (synthesis of cis-
 and trans-2-Aminocyclohexanol and 2-Aminocycloheptadecanol)

PERIODICAL: Chemický Listy, 1958, Vol. 52 (82), br. 10, pp 1951 - 1956

ABSTRACT: A previous publication (Ref. 1) described the synthesis of cis- and trans-2-aminoalcohols. An analogous method was employed for synthesis of the cis and trans-2-amino-cyclohexanol and the cis- and trans-2-amino-cycloheptadecanol. The resulting alcohols were subjected to catalytic hydrogenation on the Adams catalyst and the prepared mixture of cis- and trans-isomers was separated by crystallisation. The cis-2-aminoalcohol and its corresponding trans-isomer, and further to emulsions by heating. The latter compounds were obtained in high yields and the corresponding trans-2-aminoalcohols prepared by acid hydrolysis. The conformation of these compounds was deduced by preparing them with previously.

Card 1/2

described homologues (Ref. 12). Pic-1: the dependence of the melting point of cis- and trans-2-aminoalcohols and cis- and trans-2-benzamidoalcohols on the size of the ring. Details of the preparation of the starting materials and of 2-benzamidoalcohols, 2-benzamido-octanol, 2-(p-nitrobenzylidene)benzamidoalcohols, 2-benzamido-2-methylbenzene sulphonate and 2-benzamido-4,5-poly(methyloleo- Δ -octanol are given as well as their melting points, percentage composition and yields. There is 1 Picture, 14 References; 7 Czech, 4 Swiss and 3 English.

ASSOCIATION: Odibleni organické syntez, Chemický ústav, Československá akademie věd, Praha (Department for Organic Synthesis, Institute of Chemistry, Czechoslovak Academy of Sciences, Prague).

PRESERVE: 11th October, 1957

Card 2/2

COUNTRY	: CZECHOSLOVAKIA	G
CATEGORY	: Organic Chemistry, Synthetic Organic Chemistry	
ABSTRACT JOUR.	: REKhim., No.23 1959, No. 82241	
AUTHOR	: Svoboda, M.; Tichy, H.; Sicher, J.	
INST.	: -	
TITLE	: Stereochemical Studies. XI. Synthesis of cis- and trans-2-aminocyclotetradecanol and 2-aminocyclopentadecanol	
ORIG. PUB.	: Collect. czechosl. chem. commun., 1958, 23, No 10, 1958-1964; Chem. listy, 1958, 52, 1951	
ABSTRACT	: In order to study the relation between the configuration and chemical and physical properties, cis- and trans-2-aminocyclotetradecanol (cis- and trans-I) and cis- and trans-2-aminocyclopentadecanol (cis- and trans-II) were synthesized. Through the hydrogenation of the oxime of 2-oxycyclotetradecanone (III) over Pt (from PtO ₂) in alcohol at ~20° and normal pressure, cis-I was obtained, yielding 21.85 g (from 100 g III), m.p.120-121° (from	

CARD: 1/8

G-6

COUNTRY :
CATEGORY :

ABS. JOURN. : RZKhim., No. 23 1959, No. 82241

AUTHOR :
LAST. :
TITLE :

ORIG. PUB. :

ABSTRACT : benzene, ethyl acetate and alcohol); hydrochloride (HC), m.p. 223-224° (from alcohol-ether); N-benzoyl derivative (BD), yield 97%, m.p. 163-184° (from alcohol); N-p-nitrobenzoyl derivative (NBD), m.p. 194.5-195° (from alcohol). Analogically, from the ester of 2-oxycyclopentadecanone (IV), cis-II, yield 11.75 g (from 44.2 g IV), m.p. 89-90° (from petr. ether and benzene), is obtained; HC, m.p. 220-222.5° (from alcohol-ether); BD,

cont'd.

CARD: 2/8

COUNTRY :	
CATEGORY :	
ASS. JOUR. :	RZKhim., No. 23 1959, No. 82241
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd.	: yield 90%, m.p. 142-142.5° (from acetone); NBD, m.p. 162-163.5° (from alcohol). By heating (18 hours) trans-2-phenyl-4,5-dodecamethylene- Δ^2 -oxazoline with concentrated HCl in alcohol, trans-I was obtained, yielding 93.5%, m.p. 105-106° (from petroleum ether); IC, m.p. 215-216° (from alcohol-ether); BD, yield 86.5%, m.p. 170-171° (from alcohol); NBD, n.p. 192-193° (from alcohol). Analogously, from trans-2-phenyl-4,5-tridecamethylene-

CARD: 3/8

G-7

COUNTRY :	G
CATEGORY :	
ABS. JOUR. :	RZKhim., No. 23 1959, No. 82241
AUTHOR :	
YEAR :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd	<p>Δ^2-oxazoline, trans-II was synthesized, yield 82%, m.p. 93-93.5° (from petroleum ether); HC, m.p. 192-193°; BD, yield 83%, m.p. 143-143.5° (from acetone-alcohol); NBD, m.p. 181-182° (from alcohol). By interaction with 2 moles of $\text{CH}_3\text{SO}_2\text{Cl}$ in $\text{C}_5\text{H}_5\text{N}$ (12 hours at 0°), the synthesized BD were transformed into corresponding O-methane sulfonates [the initial amino-alcohol, yield of methane sulfonate in %, m.p. in °C (from ethyl acetate) are given]:</p>
CARD:	4/8

COUNTRY	:	G
CATEGORY	:	
ABS. JOUR.	: RZKhim., No. 23	1959, No. 82841
AUTHOR	:	
TEXT	:	
TITLE	:	
ORIG. PUB.	:	
ABSTRACT cont'd	: cis-I, 99.5, 148-149; trans-I, 97, 129-130; cis-II, 100, 120-121; trans-II, 95, 107-108. The obtained methane sulfonates being heated with CH ₃ COOK in alcohol (10-30 hours at 80- 95°) are transformed into 2-phenyl-4,5-poly- methylene- Δ^2 -oxazoline, the configuration of which is opposite to the initial amino-alco- hols [the initial amino-alcohol, polymethyl- ene, yield in %, m.p. in °C (from petroleum ether), b.p. in °C/mm, m.p. of picrate in °C	
CARD:	5/8	

G-8

COUNTRY :
CATEGORY :

ABS. JOUR. : AZKhim., No. 23 1959, No. 622h1

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : [are given]: cis-I, trans-dodecamethylene, 95.6, 62-63, 190-200/0.2-0.3, 159-160 (from alcohol); trans-I, cis-dodecamethylene, 72, 95-96, --, 160-161 (from alcohol); cis-II, trans-tridecamethylene, 91.6, 47-48, 100-120/0.16, 149-150 (from CH_3OH); trans-III, cis-tridecamethylene, 91.6, 68.5-69, 195-202/0.2, 136.5-137 (from CH_3OH). In 1D and HED of trans-I and trans-II left standing in dioxane, saturated with gaseous HCl , cycl

CARD: 6/8

COUNTRY :	
CATEGORY :	
ABC. JOUR. :	RZKhim., No. 23 1959, No. 32241
AUTHOR :	
INST. :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd	migrates and NC of trans-2-benzoyloxy- or 2-p-nitrobenzoyloxy cycloalkylamines are formed (acyl, cycloalkyl and m.p. in °C are given): benzoyl, tetradecyl, 172-173; p-nitrobenzoyl, tetradecyl, 173-175; benzoyl, pentadecyl, 166.5-167; p-nitrobenzoyl, pentadecyl, 179-181. For cis-isomers such like migration is not observed. The configuration of the products was determined according to the various ability of acyls for migration,
CARD:	7/8

G-9

COUNTRY :
CATEGORY :

G

ABS. JOUR. : RZKhim., No.23 1959, No.62241

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : reaction ability at cyclization and infrared spectra. The graphic dependence of the melting temperature of 2-aminocyclanols and their PD on the value of the cycle which has a sharp maximum for C12 is given. Report X,
cont'd see Abstract 62175.-- Jan Kovar

CARD: 8/6

Milos Tichy

5

Zmínky Heclig

Stereochemical studies. XI. Synthesis of *cis*- and *trans*-2-aminoциклотетрадеканол and 2-aminoциклопентадеканол. Miroslav Srohoda, Milos Tichy, and Jiri Sicher (Českoslov. akad. věd, Prague). Chem. Listy 53, 1961-6 (1963); cf. C.A. 53, 1185g. Hydrogenating a soln. of 100 g. cyclotetradecanol-2-one oxime in 1 l. EtOH over Adams catalyst gives 21.85 g. *cis*-2-aminoциклотетрадеканол (I), m. 120-1° (C₆H₆, AcOEt, EtOH); HCl salt, m. 223-4° (EtOH-Et₂O). Boiling 18 hrs. a soln. of 18.0 g. *trans*-2-phenyl-4,5-dodecamethylene-Δ⁴-oxazoline in 250 ml. EtOH and 300 ml. concd. HCl gives 12.2 g. *trans*-2-aminoциклотетрадеканол (II), m. 105-6° (petr. ether); HCl salt, m. 218-18° (EtOH-Et₂O). Similarly is obtained *cis*-2-aminoциклопентадеканол, m. 89-90° (petr. ether, ligroine); HCl salt, m. 220-2.5° (EtOH-Et₂O). *trans*-2-Aminocyclopentadecanol, obtained in 82% yield from *trans*-2-phenyl-4,5-tridecamethylene-Δ⁴-oxazoline, m. 92-3.5° (petr. ether); HCl salt, m. 102-3° (EtOH-Et₂O). Adding 16.0 g. NaOH in 250 ml. H₂O to a soln. of 18.2 g. I in 500 ml. C₆H₆ and then 14.6 g. BiCl portionwise with stirring and cooling gives 25.7 g. *cis*-2-benzamidocyclotetradecanol (III), m. 183-4° (EtOH). Similarly are obtained: 88.5% *trans*-2-benzamidocyclotetradecanol, m. 170-1° (EtOH); 90% *cis*-2-benzamidocyclopentadecanol, m. 142-2.5° (Me₂CO); 83% *trans*-2-benzamidocyclopentadecanol, m. 143-3.5° (Me₂CO-EtOH). Acylation according to the method described in C.A. 53, 1185g, yields *cis*-2-(*p*-nitrobenzamido)cyclotetradecanol, m. 194.5-5.0° (EtOH), *trans*-2-(*p*-nitrobenzamido)cyclotetradecanol, m. 192-3° (EtOH), *cis*-2-(*p*-nitrobenzamido)cyclopentadecanol, m. 162.5-3.5° (EtOH).

CW
%

and *trans*-2-(*p*-nitrobenzamido)cyclopentadecanol, m. 181-2° (EtOH). A cooled soln. of 23.2 g. III in 400 ml. C₆H₆N kept with 16 g. MeSO₂Cl at 0° overnight, the mixt. dild. with ice H₂O, the crystals filtered off, washed, and dried gives 28.6 g. *cis*-3-benzamidocyclotetradecyl methanesulfonate (IV), m. 148-0° (AcOEt). Similarly are obtained: 97% *trans*-2-benzamidocyclotetradecyl methanesulfonate, m. 129-80°; 100% *cis*-2-benzamidocyclopentadecyl methanesulfonate, m. 120-1°, and 91.6% *trans*-2-benzamidocyclopentadecyl methanesulfonate, m. 107-8°. Heating 30 hrs. a soln. of 26.0 g. crude IV and 20 g. anhyd. AcOK in 1500 ml. EtOH to 95° in a glass autoclave, distg. the EtOH, and extg. the product with Et₂O gives 10.05 g. *trans*-2-phenyl-4,5-dodecamethylene-Δ⁴-oxazoline, b.p. 180-200°, m. 82-3° (petr. ether); picrate, m. 159-80° (EtOH). Analogously are obtained: 72% *cis*-2-phenyl-4,5-dodecamethylene-Δ⁴-oxazoline, m. 95-6° (petr. ether) [picrate, m. 180-1° (EtOH)]; 95.6% *trans*-2-phenyl-4,5-tridecamethylene-Δ⁴-oxazoline, b.p. 180-90°, m. 47-8° (petr. ether) [picrate, m. 149-50° (MeOH)], and 91.6% *cis*-2-phenyl-4,6-tridecamethylene-Δ⁴-oxazoline, b.p. 195-202°, m. 68.5-9° (petr. ether); picrate, m. 186.5-7° (MeOH). When the N-acyl derivs. of the above aminocyclanols are subjected to acyl-migration (N → O) by dissolving 150 mg. of the compd. in 4 ml. dioxane satd. in the cold with HCl, the mixt. kept at room temp. overnight, dild. with 5 ml. dry Et₂O and allowed to stand overnight, the soln. contg. the *cis* isomers remains unchanged, whereas the *trans* isomers yield cryst. HCl salts of the following compds.: *trans*-2-benzoyloxy-cyclotetradecylamine, m. 171-3°, *trans*-2-(*p*-nitrobenzoyloxy)cyclotetradecylamine, m. 173-5°, *trans*-2-benzoyloxy-cyclopentadecylamine, m. 168.5-7°, and *trans*-2-(*p*-nitrobenzoyloxy)cyclopentadecylamine, m. 170-81°.

L. J. Urbánek

TICHY, M.

The longest highway bridge in the world. p. 277. (Inzenyrske Stavby, Vol. 5, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957, Uncl.

TICHY, M.

TICHY, M. Preparation of trimethylbenzylammonium hydroxide (Triter. B).
p. 662. V. l. 50, no. 4, Apr. 1956. ČESKÉ LISTY. Praha,
Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4—April 1957

TICHY, M.

TICHY, M. α -keto- β -(O-nitrophenyl)- γ -butyrolactone. p. 663. Vol. 50,
no. 4, Apr. 1956. ČEDUČÍKE LISTY. Praha, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

Tichy, M.

5

✓ α , ω -Oxo- β -(α -nitrophenyl)- γ -butyrolactone. M. Tichy and J. Stuchlik (Tech. Univ., Prague). *Chem. Listy* 1963, 4 (1960), 220. α -O₂NCH₂COCl₂H (10.5 g.), 3 g., para-formaldehyde, and 1 g. Me₂NH₂Cl in 330 ml. C₆H₆ refluxed 3 hrs., the ppt. dissolved in 500 ml. boiling water, and the soin, decolorized with active C and evapd., gave 6.6 g. α -oxo- β -(α -nitrophenyl)- γ -butyrolactone (I), m. 160°. I is very resistant to attack by alk. H₂O₂, const-boiling HBr, and PBr₃. Me₂SO₄ (0.25 ml.) and 2.1 ml. 0.1*N* NaOH stirred into 0.5 g. I in 2.1 ml. 0.5*N* NaOH at 40°, the mixt. heated to 60°, 0.5*N* NaOH added till a reddish brown color appeared, the mixt. acidified with HCl and extd. with Et₂O, the ext. evapd., and the residue crystd. from MeOH yielded 0.28 g. *Me ester of the enol of I* m. 79°. I (0.5 g.) in pyridine-C₆H₆ and 0.27 ml. BzCl refluxed 10 min. gave the *benzoate of the enol of I*, m. 88° (from MeOH).

L. J. Urbanek

(2)

RJ U

Tichy M.

6

Preparing trimethylbenzylammonium hydroxide (Triton B). J. Stuchlik, M. Tichy, and V. Prechážka (Tech. Univ., Prague). *Chem.-Listy* 50, 602 (1956).—The described procedure replaces the use of expensive Ag_2O by an ion exchanger. PhCH_2Cl (83 g.), 300 ml. 30% $\text{Me}_2\text{N}-\text{EtOH}$, and 100 ml. EtOH heated 5 hrs. to 70–5° gave 100 g. $\text{PhCH}_2\text{NMe}_2\text{Cl}$ which, passed over a strongly basic resin in the OH^- cycle and the soln. evapd. under N_2 , yielded 135–157 g. of 60–70% soln. of Triton B ready for use as catalyst. L. J. Urbánek

(3)

M. Tichy

100% Y / 11.
CZECHOSLOVAKIA/Organic Chemistry. Synthetic Organic E-2
Chemistry.

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26779.

Author : Tichý, M.; Stuchlík, J.

Inst :

Title : α -Keto- β -(o-nitrophenyl)- γ -butyrolactone.

Orig Pub: Chem. listy, 1956, 50, No. 4, 663 - 664.

Abstract: 6.5 g of α -keto- β -(o-nitrophenyl)- γ -butyrolactone (I), melting point 166° (from water), was received in the attempt to obtain the corresponding Mannich's base by heating (3 hours) 10.5 g of O-NO₂C₆H₄CH₂COCOOH, 3 g of paraformaldehyde and 4 g of C₆H₅N(CH₃)₂·HCl in 330 ml of C₆H₆. I proved to be unusually stable at the attempts to open the lactone ring (alkali, H₂O₂, PBr₅, 48% HBr). I is in a stable keto

Card 1/2

TICHY, M.

TICHY M.

Nova technika v ideni porodu klestaci podla Covjanova. /New
technique of forceps delivery according to Covjanov/ Cesk.
gyn. 16:2 1951 p. 111-4.

1. Of the Institute for Mother and Child (Head--Prof. J. Trapl,
M.D.) in Prague-Podole.

TICHY, O.

TICHY, O. Progress in prefabrication and assembling prestressed concrete parts for various structures. (To be cont'd)
p. 321, Vol 4, no. 7, July 1956. INZENYRSKE STAVBY
(Ministerstvo stavebnictvi)
Praha, Czechoslovakia

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

*Chromatography was performed on a column packed with 10% Dowex 50W-X2 (H⁺ form) activated with 5% HCl and 5% MeOH. The mobile phase was 0.1M activated with Ca⁺⁺ and 0.1M with 5% MeOH was used as mobile phase. For partition chromatography (B) the stationary phase was DCONFr, the mobile phase C₆H₆-CHCl₃ (1:1). For the detection, *R*_f best: chloro-2,4-dioxo-3-chromonylacetate and Dragendorff's reagent in A and B methods, resp., were used. *R*_f values in A and B methods were for lobeline, 0.78, 0.43; for lobelamine 0.81, 0.77; and for lobelanidine, 0.28 and 0.22. M. Hudukevich*

TICHY, R.

TECHNOLOGY

Periodicals: ENERGETIKA Vol. 9, no. 2, Feb. 1959.

TICHY, R. Discussion of J. Silha's article "Problems connected with the building of temporary 22/0.4 kv. transformer stations" published in the No. 1, 1958 issue of Energetika. p. 106. Electric-power engineering at the All-China Exhibition of Industry and Transportation. p. 110.

Monthly List of East European Accessions (ELAI) LC Vol. 8, No. 5,
May 1959, Unclass.

TICHY, R.

TICHY, R.; PROCHAZKA, Z.

Studies on anticoagulants. XIX. Hydrolytic degradation of the ethylester of
di-(4-hydroxycoumarinyl-3)-acetic acid(pelentan). XX. Derivatives of
-(4-hydroxycoumarinyl-3)- -(2-hydroxybenzoyl)-propionic acid. p. 743.
(Chemicke Listy. Praha. Vol. 46, No. 12, Dec. 1952)

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 6,
June 1955, Uncl.